

EFFECT OF AGE AND SEASON ON SEMINAL PLASMA TRAITS OF INDIGENOUS COCKS SELECTED ON THE BASIS OF SPERMATOZOAN CONCENTRATION AND ABNORMALITY.

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ABSTRACT

This study was commenced with flock of Barred indigenous roosters which represent the first generation that selected by divergent selection for 64 roosters on the basis of number of spermatozoa per ejaculate and percentage of abnormal spermatozoa as follow :

Genetic group 1: First generation which produced from selection for high number of spermatozoa per ejaculate.

Genetic group 2: First generation which produced from selection for low number of spermatozoa per ejaculate.

Genetic group 3: First generation which produced from selection for low percentage of abnormal spermatozoa .

Genetic group 4: First generation which produced from selection for high percentage of abnormal spermatozoa .

Genetic group 5: Control group which maintained the mean of foundation stock for the two traits.

This study included two experiments , the first was conducted during summer months (from 17 through 37 weeks of age) , while the second experiment was conducted during autumn season (from 40through 52 weeks of age) to study the effect of age on seminal plasma traits of indigenous cocks selected on the basis of spermatozoa concentration and abnormality.

Results of the experiments that conducted during summer season revealed that there were highly significant increase in seminal plasma glucose , protein and activities of GOT, GPT , LDH , ALP , ACP enzymes with aging . However , there was relative constant for the means of traits included in this study through autumn season.

Results indicated that genetic groups 1 and 3 showed the higher values ($P < 0.01$) of seminal plasma ALP and ACP and lower values ($P < 0.01$) of seminal plasma glucose , protein , GOT , GPT , and LDH during summer and autumn seasons than genetic groups 2 and 4 .

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